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10/575,111	04/10/2006	Hiroki Yamada	1001560-000594	9370
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EXAMINER				
ROST, ANDREW J				
ART UNIT		PAPER NUMBER		
3753				
NOTIFICATION DATE		DELIVERY MODE		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

# Office Action Summary

**Application No.**

10/575,111

**Applicant(s)**

YAMADA ET AL.

**Examiner**

Andrew J. Rost

**Art Unit**

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date 4/10/06, 12/12/08
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

## **DETAILED ACTION**

### ***Specification***

1. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Jacoby et al. (5,916,953).

Regarding claim 1, Jacoby et al. disclose resin materials having tensile strengths ranging from 87 MPa to 124 MPa at a normal temperature (23° C) (listed in tables I-V). The recitation of "for a valve" is taken to be an intended use limitation and is not given patentable weight as long as the material is capable of being used for the intended use.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacoby et al. (5,916,953).

Regarding claim 2, Jacoby et al. disclose resin materials having tensile strengths ranging from 87 MPa to 124 MPa at a normal temperature (23° C) (listed in tables I-V). The recitation of "for a valve" is taken to be an intended use limitation and is not given patentable weight as long as the material is capable of being used for the intended use. Jacoby et al. disclose the claimed invention except for the tensile strength to be in a range of 75 to 350 MPa at 120°C. It would have been obvious to one having ordinary

skill in the art at the time the invention was made to provide the components in the material in a manner (i.e., certain ratios) in order to provide a tensile strength of 75 to 350 MPa at 120°C, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice and that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Leshin*, 125 USPQ 416. See also *Ballas Liquidating Co. v. Allied industries of Kansas, Inc.* (DC Kans) 205 USPQ 331. *In re Aller*, 105 USPQ 233.

Regarding claim 3, Jacoby et al. disclose resin materials having tensile strengths ranging from 87 MPa to 124 MPa at a normal temperature (23° C) (listed in tables I-V). The recitation of "for a valve" is taken to be an intended use limitation and is not given patentable weight as long as the material is capable of being used for the intended use. Jacoby et al. disclose the claimed invention except for the notched Izod impact strength of 15 to 100 KJ/m<sup>2</sup> at -20 to 120°C. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the components in the material in a manner (i.e., certain ratios) in order to provide a notched Izod impact strength of 15 to 100 KJ/m<sup>2</sup> at -20 to 120°C, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice and that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Leshin*, 125 USPQ 416. See also

*Ballas Liquidating Co. v. Allied industries of Kansas, Inc.* (DC Kans) 205 USPQ 331. *In re Aller*, 105 USPQ 233.

Regarding claim 4, Jacoby et al. disclose resin materials having tensile strengths ranging from 87 MPa to 124 MPa at a normal temperature (23° C) (listed in tables I-V). The recitation of "for a valve" is taken to be an intended use limitation and is not given patentable weight as long as the material is capable of being used for the intended use. Jacoby et al. disclose the claimed invention except for the tensile strength to be in a range of 75 to 350 MPa at 120°C and a notched Izod impact strength of 15 to 100 KJ/m<sup>2</sup> at -20 to 120°C. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the components in the material in a manner (i.e., certain ratios) in order to provide a tensile strength of 75 to 350 MPa at 120°C and a notched Izod impact strength of 15 to 100 KJ/m<sup>2</sup> at -20 to 120°C, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice and that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Leshin*, 125 USPQ 416. See also *Ballas Liquidating Co. v. Allied industries of Kansas, Inc.* (DC Kans) 205 USPQ 331. *In re Aller*, 105 USPQ 233.

6. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacoby et al. (5,916,953) in view of Felton (3,595,523).

Jacoby et al. disclose resin materials having tensile strengths ranging from 87 MPa to 124 MPa at a normal temperature (23° C) (listed in tables I-V). Jacoby et al. do not expressly disclose the use of the resin for a case body of a valve drive section or as the valve body of a butterfly valve. However, Felton discloses the use of resin materials for a valve body of a butterfly valve (2) and for a case body (1, 8) of a valve drive section to be old and well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the resin member of Jacoby et al. as a case body of a valve drive section or as a valve body of a butterfly valve as taught by Felton in order to provide the useful characteristics of the resin material in a desired use.

7. Claims 1-4, 7, 10, 13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsunaga et al. (5,391,665).

Regarding claim 1, Matsunaga et al. disclose various compositions for a resin member. The recitation of "for a valve" is taken to be an intended use limitation and is not given patentable weight as long as the material is capable of being used for the intended use. Matsunaga et al. disclose the claimed invention except for the tensile strength to be in a range of 80 to 400 MPa at normal temperature. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the components in the material in a manner (i.e., certain ratios) in order to provide a tensile strength of 80 to 400 MPa at normal temperature, since it has been held to be within the general skill of a worker in the art to select a known material on the

basis of its suitability for the intended use as a matter of obvious design choice and that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Leshin*, 125 USPQ 416. See also *Ballas Liquidating Co. v. Allied industries of Kansas, Inc.* (DC Kans) 205 USPQ 331. *In re Aller*, 105 USPQ 233.

Regarding claim 2, Matsunaga et al. disclose various compositions for a resin member. The recitation of "for a valve" is taken to be an intended use limitation and is not given patentable weight as long as the material is capable of being used for the intended use. Matsunaga et al. disclose the claimed invention except for the tensile strength to be in a range of 80 to 400 MPa at normal temperature and the tensile strength to be in a range of 75 to 350 MPa at 120°C. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the components in the material in a manner (i.e., certain ratios) in order to provide a tensile strength of 80 to 400 MPa at normal temperature and a tensile strength of 75 to 350 MPa at 120°C, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice and that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Leshin*, 125 USPQ 416. See also *Ballas Liquidating Co. v. Allied industries of Kansas, Inc.* (DC Kans) 205 USPQ 331. *In re Aller*, 105 USPQ 233.

Regarding claim 3, Matsunaga et al. disclose various compositions for a resin member. The recitation of "for a valve" is taken to be an intended use limitation and is

not given patentable weight as long as the material is capable of being used for the intended use. Matsunaga et al. disclose the claimed invention except for the tensile strength to be in a range of 80 to 400 MPa at normal temperature and the notched Izod impact strength of 15 to 100 KJ/m<sup>2</sup> at -20 to 120°C. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the components in the material in a manner (i.e., certain ratios) in order to provide a tensile strength of 80 to 400 MPa at normal temperature and a notched Izod impact strength of 15 to 100 KJ/m<sup>2</sup> at -20 to 120°C, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice and that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Leshin*, 125 USPQ 416. See also *Ballas Liquidating Co. v. Allied industries of Kansas, Inc.* (DC Kans) 205 USPQ 331. *In re Aller*, 105 USPQ 233.

Regarding claim 4, Matsunaga et al. disclose various compositions for a resin member. The recitation of "for a valve" is taken to be an intended use limitation and is not given patentable weight as long as the material is capable of being used for the intended use. Matsunaga et al. disclose the claimed invention except for the tensile strength to be in a range of 80 to 400 MPa at normal temperature, a tensile strength of 80 to 400 MPa at normal temperature, the tensile strength to be in a range of 75 to 350 MPa at 120°C and a notched Izod impact strength of 15 to 100 KJ/m<sup>2</sup> at -20 to 120°C. It would have been obvious to one having ordinary skill in the art at the time the invention

was made to provide the components in the material in a manner (i.e., certain ratios) in order to provide a tensile strength of 75 to 350 MPa at 120°C and a notched Izod impact strength of 15 to 100 KJ/m<sup>2</sup> at -20 to 120°C, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice and that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Leshin*, 125 USPQ 416. See also *Ballas Liquidating Co. v. Allied industries of Kansas, Inc.* (DC Kans) 205 USPQ 331. *In re Aller*, 105 USPQ 233.

In regards to claim 7, Matsunaga et al. disclose a resin member formed by molding a molding material having a resin composition consisting of an epoxy acrylate resin (various acrylates are disclosed in col. 6, lines 6-61) having hydroxyl groups formed at both ends, a polyfunctional isocyanate compound having a plurality of isocyanate groups in a molecule (col. 5, lines 30-32), a curing agent, an internal mold release agent and a fiber reinforcing material (glass fiber, various fillers are listed on col. 21, lines 30-55). The recitation of "for a valve" is taken to be an intended use limitation and is not given patentable weight as long as the material is capable of being used for the intended use. Matsunaga et al. do not expressly disclose the specific ratios of components. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the components in the material in a manner (i.e., certain ratios) in order to provide any desired characteristics for the intended use of the resin composition, since it has been held to be within the general skill of a worker in

the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice and that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Leshin*, 125 USPQ 416. See also *Ballas Liquidating Co. v. Allied industries of Kansas, Inc.* (DC Kans) 205 USPQ 331. *In re Aller*, 105 USPQ 233.

In regards to claim 10, Matsunaga et al. disclose a resin member formed by molding a molding material having a resin composition consisting of an epoxy acrylate resin (various acrylates are disclosed in col. 6, lines 6-61) having hydroxyl groups formed at both ends, a polyfunctional isocyanate compound having a plurality of isocyanate groups in a molecule (col. 5, lines 30-32), a curing agent, an internal mold release agent and a fiber reinforcing material (glass fiber, various fillers are listed on col. 21, lines 30-55) and the use of additional fillers (col. 21, lines 30-55). The recitation of "for a valve" is taken to be an intended use limitation and is not given patentable weight as long as the material is capable of being used for the intended use. Matsunaga et al. do not expressly disclose the specific ratios of components. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the components in the material in a manner (i.e., certain ratios) in order to provide any desired characteristics for the intended use of the resin composition, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice and that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Leshin*, 125

USPQ 416. See also *Ballas Liquidating Co. v. Allied industries of Kansas, Inc.* (DC Kans) 205 USPQ 331. *In re Aller*, 105 USPQ 233.

In regards to claim 13, Matsunaga et al. disclose a resin member formed by molding a molding material having a resin composition consisting of an epoxy acrylate resin (various acrylates are disclosed in col. 6, lines 6-61) having hydroxyl groups formed at both ends, a polyfunctional isocyanate compound having a plurality of isocyanate groups in a molecule (col. 5, lines 30-32), a curing agent, an internal mold release agent and a fiber reinforcing material (glass fiber, various fillers are listed on col. 21, lines 30-55). The recitation of "for a valve" is taken to be an intended use limitation and is not given patentable weight as long as the material is capable of being used for the intended use. Matsunaga et al. do not expressly disclose the specific ratios of components. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the components in the material in a manner (i.e., certain ratios) in order to provide any desired characteristics for the intended use of the resin composition, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice and that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Leshin*, 125 USPQ 416. See also *Ballas Liquidating Co. v. Allied industries of Kansas, Inc.* (DC Kans) 205 USPQ 331. *In re Aller*, 105 USPQ 233. The recitation of "produced by molding a sheet or bulk-shaped molding material" is taken to be a product by process limitation. The patentability of a product does not

depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product in the prior art, the claim is unpatentable even though the prior product was made by a different process (see MPEP 2113).

In regards to claim 16, Matsunaga et al. disclose a resin member formed by molding a molding material having a resin composition consisting of an epoxy acrylate resin (various acrylates are disclosed in col. 6, lines 6-61) having hydroxyl groups formed at both ends, a polyfunctional isocyanate compound having a plurality of isocyanate groups in a molecule (col. 5, lines 30-32), a curing agent, an internal mold release agent and a fiber reinforcing material (glass fiber, various fillers are listed on col. 21, lines 30-55) and the use of additional fillers (col. 21, lines 30-55). The recitation of "for a valve" is taken to be an intended use limitation and is not given patentable weight as long as the material is capable of being used for the intended use. Matsunaga et al. do not expressly disclose the specific ratios of components. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the components in the material in a manner (i.e., certain ratios) in order to provide any desired characteristics for the intended use of the resin composition, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice and that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Leshin*, 125 USPQ 416. See also *Ballas Liquidating Co. v. Allied industries of Kansas, Inc.* (DC Kans) 205 USPQ 331. *In re Aller*, 105 USPQ 233. The recitation of "produced by

molding a sheet or bulk-shaped molding material" is taken to be a product by process limitation. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product in the prior art, the claim is unpatentable even though the prior product was made by a different process (see MPEP 2113).

8. Claims 5, 6, 8, 9, 11, 12, 14, 15, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsunaga et al. (5,391,665) in view of Felton (3,595,523).

Matsunaga et al. disclose various compositions for a resin member. Matsunaga et al. do not expressly disclose the use of the resin for a case body of a valve drive section or as the valve body of a butterfly valve. However, Felton discloses the use of resin materials for a valve body of a butterfly valve (2) and for a case body (1, 8) of a valve drive section to be old and well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the resin member of Matsunaga et al. as a case body of a valve drive section or as a valve body of a butterfly valve as taught by Felton in order to provide the useful characteristics of the resin material in a desired use.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew J. Rost whose telephone number is 571-272-

2711. The examiner can normally be reached on 7:00 - 4:30 M-Th and 7:00 - 12:00 Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 571-272-4777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. J. R./  
Examiner, Art Unit 3753

/Robin O. Evans/  
Supervisory Patent Examiner, Art Unit 3753